14” Professional Bandsaw

Models: 10-350/10-350BAL

RIKON POWER TOOLS

Owner’s Manual

Record the serial number and date of purchase in your manual for future reference.

Serial number: _____

Date of purchase: _____

For more information:

www.rikontools.com or info@rikontools.com

For Parts or Questions:

techsupport@rikontools.com or 877-884-5167

Part #10-350M1

Operator Safety: Required Reading

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. **The following instructions must be followed at all times.**

There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

General Safety Warnings

KNOW YOUR POWER TOOL. Read the owner's manual carefully. Learn the tool's applications, work capabilities, and its specific potential hazards.

⚠ DANGER

ALWAYS GROUND ALL TOOLS.
If your tool is equipped with a three-pronged plug, you must plug it into a three-hole electric receptacle. If you use an adapter to accommodate a two-pronged receptacle, you must attach the adapter plug to a known ground. Never remove the third prong of the plug.

ALWAYS AVOID DANGEROUS ENVIRONMENTS.
Never use power tools in damp or wet locations. Keep your work area well lighted and clear of clutter.

⚠ DANGER

ALWAYS REMOVE THE ADJUSTING KEYS AND WRENCHES FROM TOOLS AFTER USE.
Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

ALWAYS KEEP YOUR WORK AREA CLEAN. Cluttered areas and benches invite accidents.

⚠ DANGER

ALWAYS KEEP VISITORS AWAY FROM RUNNING MACHINES.
All visitors should be kept a safe distance from the work area.

ALWAYS MAKE THE WORKSHOP CHILDPROOF.
Childproof with padlocks, master switches, or by removing starter keys.

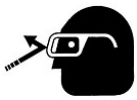
⚠ DANGER

NEVER OPERATE A TOOL WHILE UNDER THE INFLUENCE OF DRUGS, MEDICATION, OR ALCOHOL.

⚠ DANGER

ALWAYS WEAR PROPER APPAREL.
Never wear loose clothing or jewelry that might get caught in moving parts. Rubber-soled footwear is recommended for the best footing.

⚠ DANGER



ALWAYS USE SAFETY GLASSES AND WEAR HEARING PROTECTION.
Also use a face or dust mask if the cutting operation is dusty.

⚠ DANGER

NEVER OVERREACH.
Keep your proper footing and balance at all times.

⚠ DANGER

NEVER STAND ON TOOLS.
Serious injury could occur if the tool is tipped or if the cutting tool is accidentally

⚠ DANGER **ALWAYS DISCONNECT TOOLS**.
Disconnect tools before servicing and when changing accessories such as blades, bits, and cutters.

ALWAYS AVOID ACCIDENTAL STARTING.
Make sure switch is in “OFF” position before plugging in cord.

NEVER LEAVE TOOLS RUNNING UNATTENDED.

⚠ DANGER **ALWAYS CHECK FOR DAMAGED PARTS.**

Before initial or continual use of the tool, a guard or other part that is damaged should be checked to assure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other damaged parts should immediately be properly repaired or replaced.

Special Safety Rules For Bandsaws

1. Always allow the Bandaw blade to stop before removing scrap pieces from table.
2. Always keep hands and fingers away from the blade.
3. Never attempt to saw stock that does not have a flat surface, unless a suitable support is used.
4. Always hold material firmly and feed it into the blade at a moderate speed.
5. Always turn off the machine if the material is to be backed out of an uncompleted cut.
6. Adjust the upper guide about 1/8” above the material being cut.
7. Check for proper blade size and type for thickness and type of material being cut.
8. Make sure that the blade tension and blade tracking are properly adjusted.
9. Make “relief” cuts before cutting long curves.
10. Release blade tension when the saw will not be used for a long period of time.

California Proposition 65 Warning

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

For more detailed information about California Proposition 65 log onto rikontools.com.

Note: This owner’s manual is not a teaching aid. Use of this owner’s manual is intended to show assembly, adjustments, and general use.

SAVE THESE INSTRUCTIONS.

Refer to them often.

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Specifications

	10-350	10-350BAL
Throat Width	13-9/16" (345 mm)	13-9/16" (345 mm)
Max. Cutting Depth	13-15/16" (356 mm)	13-15/16" (356 mm)
Blade Length	124" (3150 mm)	124" (3150 mm)
Blade Width	1/4" – 1"(6-25 mm)	1/4" – 1"(6-25 mm)
Table Size	21-1/16" x 19-1/16" (535 mm x 485 mm)	21-1/16" x 19-1/16" (535 mm x 485 mm)
Table Tilt	Left-10° Right-45°	Left-10° Right-45°
Blade Speeds	2132 ft/min or 4101 ft/min	2163 ft/min or 4162 ft/min
Motor	2.5 HP (RIKON)	3 HP (Baldor)
Amps/Speed	10A / 1700 RPM	12.5A / 1725 RPM
Volts	220V	230V
Net weight	308 lbs	315 lbs

Contents of Package

Model 10-350 14” Professional Bandsaw is shipped complete in one crate. Model 10-350BAL is shipped in two cartons unless otherwise noted.

Unpacking and Checking Contents

a. Separate all “loose parts” from packaging materials and check each item with “Table of Loose Parts” to make sure all items are accounted for, before discarding any packaging material.

b. Thread hoist ring into threading hole on top of Bandsaw frame. This allows the user to connect a properly secured hoist mechanism to lift the Bandsaw.

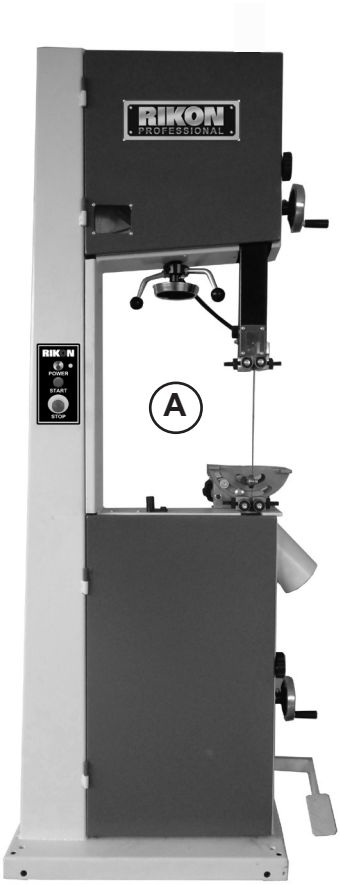
c. With the help of another person or by installing hoist ring, unbolt the Bandsaw from the packing pallet. Properly lift the Bandsaw off the packing pallet and place on level floor.

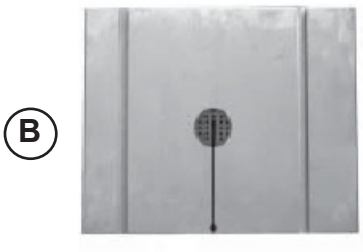
d. Remove protective oil that is applied to the table. Use any ordinary house hold type grease or spot remover.

e. Apply a coat of paste wax to the table to prevent rust. Wipe all parts thoroughly with a clean

TABLE OF LOOSE PARTS

Item	Part Name	Qty
A	Bandsaw Assembly	1
B	Table w/insert	1
C	Owner’s manual	1
D	Parts Package 1	1
E	Parts Package 2	1

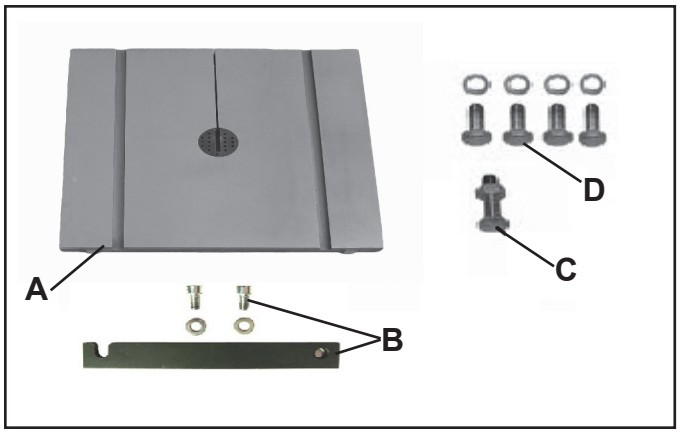




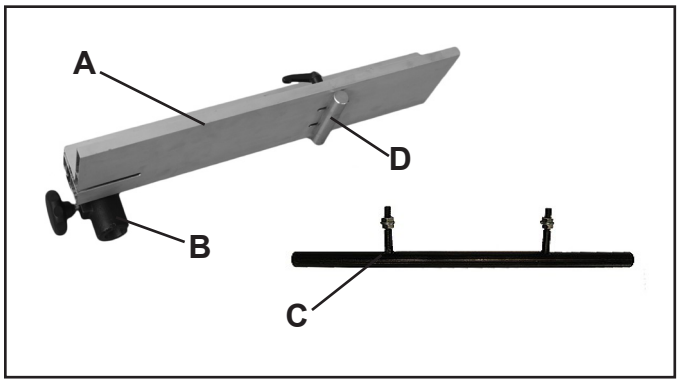
Loose Parts List

LIST OF LOOSE PARTS

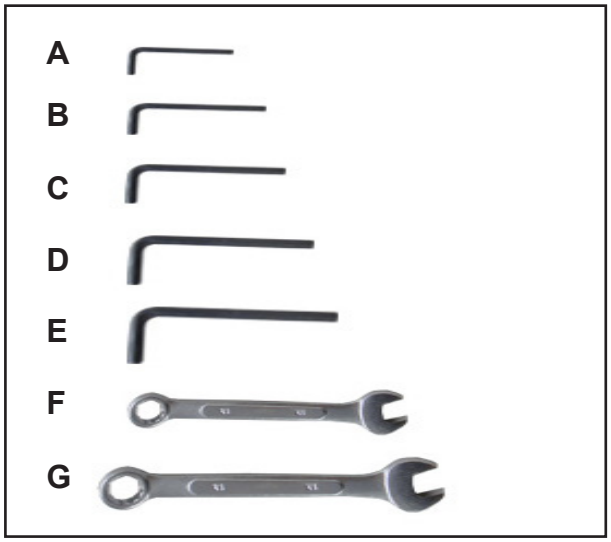
Table assembly:
A. Table
B. Table leveling bar and hardware
C. 90° table stop bolt
D. Table mounting bolts and washers



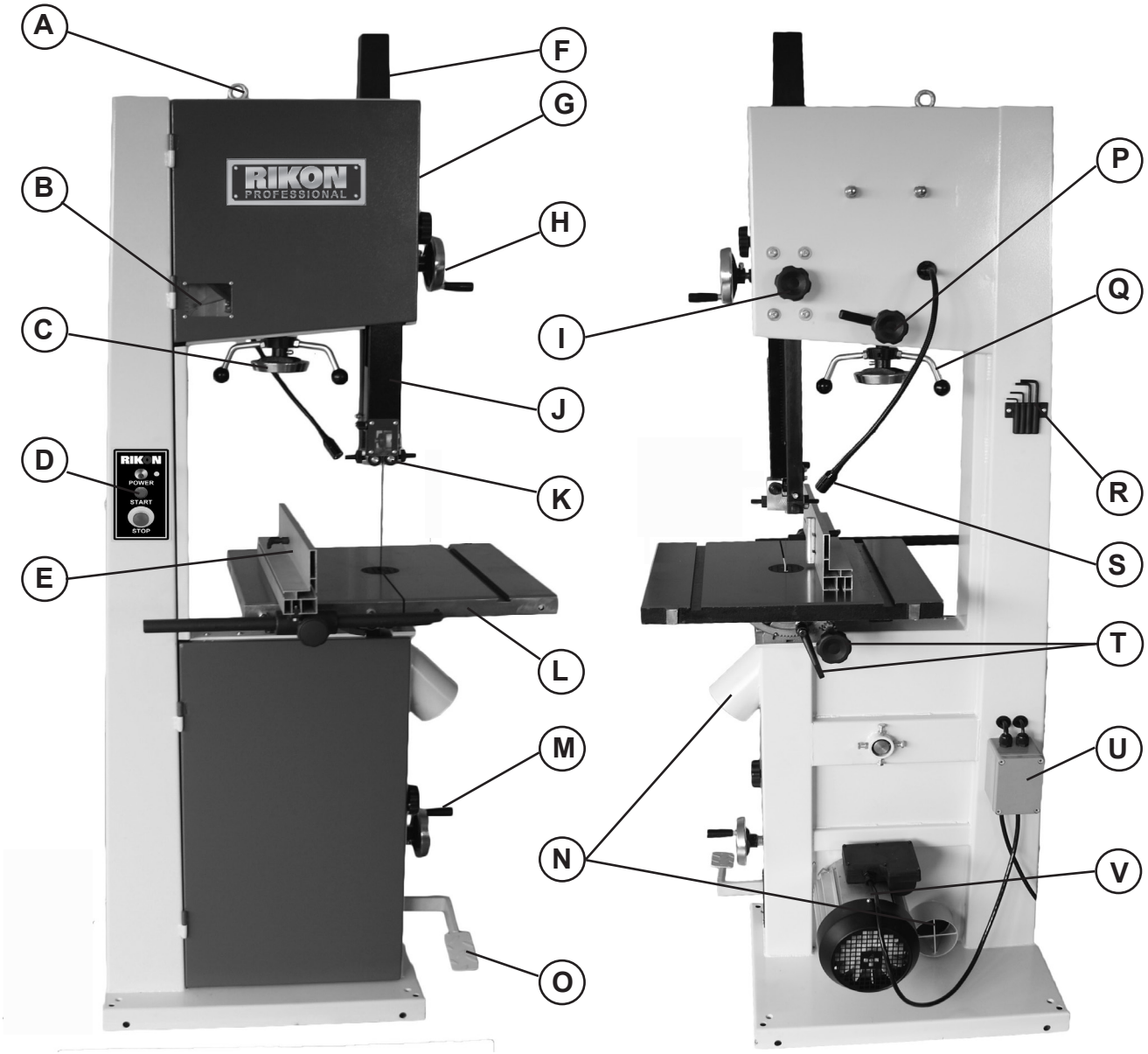
Rip fence assembly:
A. Fence bar
B. Fence
C. Fence carrier
D. Resaw bar



Tool holder assembly:
A. L wrench 2.5MM
B. L wrench 3MM
C. L wrench 4MM
D. L wrench 5MM
E. L wrench 6MM
F. 10mm wrench
G.13mm wrench



Getting to Know Your Bandsaw



A. Hoist Ring
B. Tension Indicator Window
C. Blade Tension Hand-Wheel
D. Switch
E. Rip Fence
F. Guide Post Cap
G. Blade Tracking Window
H. Guide Post Rise/Fall Handle
I. Guide Post Lock Knob
J. Hinged Blade Guard
K. Blade Guides
L. Work Table
M. Drive Belt Tension Wheel
N. 4” Dust Ports
O. Foot Break
P. Blade Tracking Knob
Q. Quick Release Lever
R. Tool Holder
S. LED Light
T. Table Tilt & Lock Knobs
U. Power Control Box
V. Motor

Assembly

Work Table Assembly

Installing Table Leveling Bar:
Locate the table leveling bar, two hex socket screws and two washers (A-Fig.1 Inset).

Insert a hex socket screw and washer through the left hole of the table leveling bar and into the threaded hole on the left side of the blade slot (B-Fig.1). Make sure that the opening of the slot on the right side of the table leveling bar faces toward the table trunnion. This will allow the table leveling bar to open outward from the bandsaw.

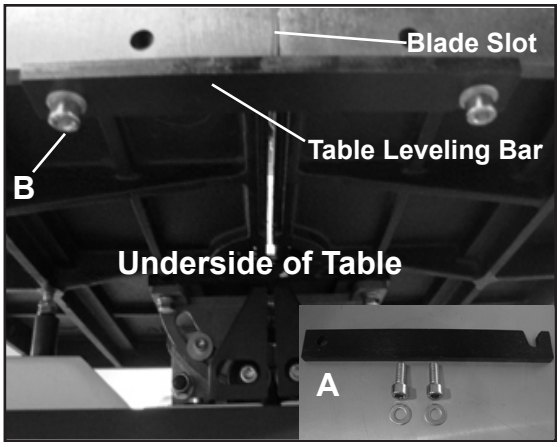


Figure 1

Rip Fence Assembly

With a 13mm wrench, remove one 13mm hex nut and one washer from each stud on the fence bar (A-Fig.2). Leave one each of 13mm hex nut and washer on each stud on the fence bar. The remaining nut and washer will be used for drift adjustments that will be described later in this manual.

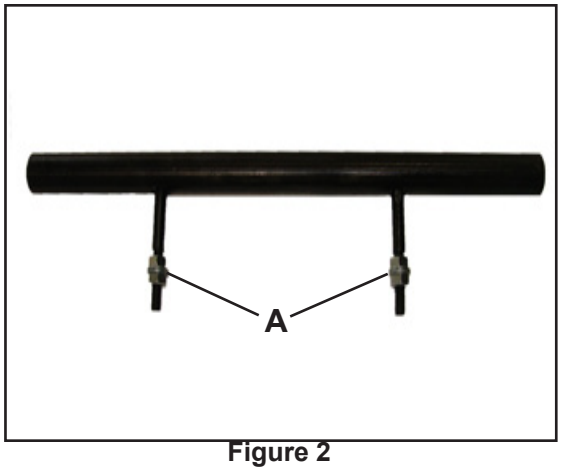


Figure 2

Next, install the fence bar studs into the table as shown (Fig.3). Locate the 13mm hex nuts and washers removed in Fig.10 and install on the opposite ends of each fence bar stud. NOTE: It may be necessary to open the table leveling bar to gain access to the right side fence bar stud.

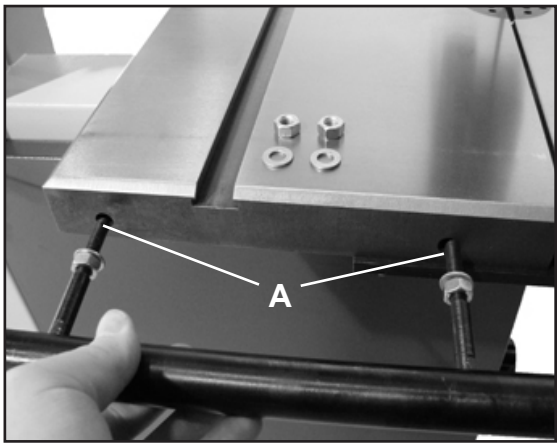


Figure 3

Hand Wheel Installation

There are two hand wheels used on the 10-350 bandsaw. The first controls the height of the upper guide post, the second adds/removes tension on the drive belt.

Attach the first hand wheel (Fig.4) to the rack and pinion shaft on the upper part of the bandsaw, using the 5mm “L” wrench provided.

Attach the second crank handle to the belt and speed control rod located below the 4” dust port, using the 5mm “L” wrench provided.

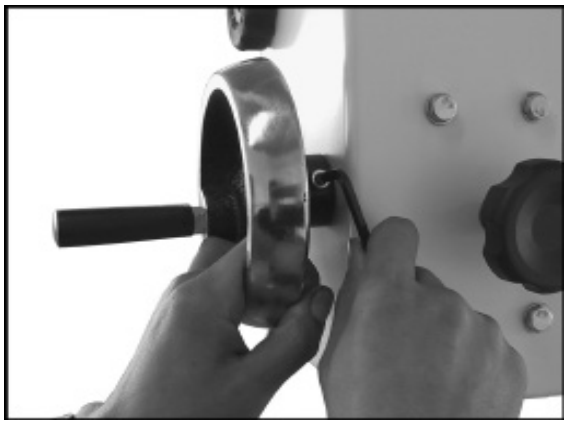


Figure 4

Adjustments

Storage for the “L” wrenches is provided for quick access when adjustments are needed.

Place the (4) “L” wrenches (3mm, 4mm, 5mm and 6mm) in the tool holder on the rear column support (Fig.5).

Figure 5

Setting the Table Square to Saw Blade

The table may be set at 90° to the saw blade sides by adjusting the table stop screw under the table. The table stop screw rests on the top of the quick release adjustment stop. By first loosening the locking nut (A-Fig.6) and then adjusting the screw (B-Fig.6), the table can be set correctly. Retighten the locking nut (A-Fig.6) making sure that the setting is maintained.

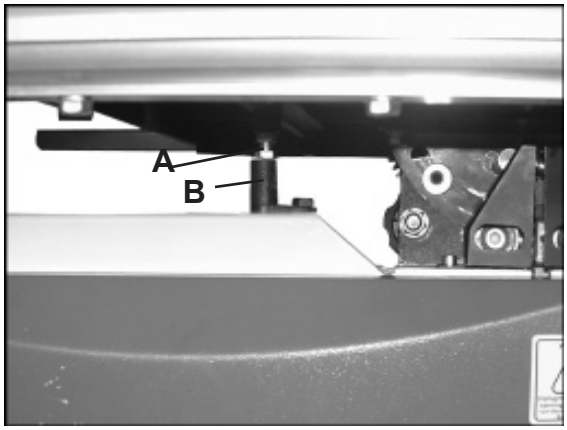


Figure 6

The table may also be set at 90° to the back of the saw blade by adjusting the four trunnion micro adjustment screws (A-Fig.7). First, slightly loosen part #98 (refer to parts explosion on page 18 of this manual). Using the 3mm “L” wrench, turn the rear trunnion micro adjusting screws part #125. Turning the screws clockwise will raise the trunnion; counterclockwise will lower. Check table for 90° and tighten part #98.

(Trunnion has been removed from bandsaw for clarity. Micro adjusting screws are raised to exaggerate location. Only two of the four micro adjusting screws shown.)

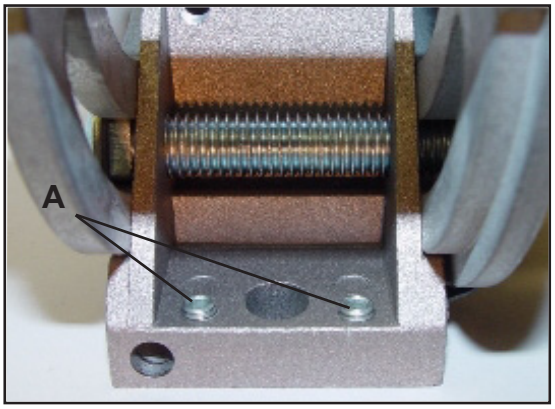


Figure 7

Tilting the Table

Loosen the lock handle (A-Fig.8) on the table trunnion. Turn the table tilting knob (B-Fig.8) to adjust the table to the desired angle. Use the angle indicator scale on the trunnion bracket to find the desired angle. Retighten the lock handle to secure the table.

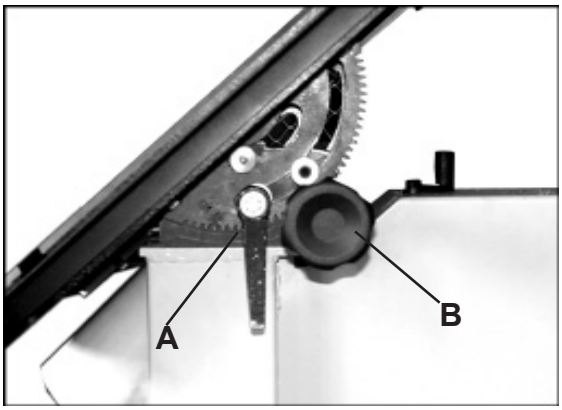


Figure 8

Adjustments

Tracking the Saw Blade

Warning! Unplug the bandsaw. Make sure the upper and lower blade guides are adjusted away from the blade and the tension scale is set to correspond to the width of the blade you are using.

Note: The blade tension scale may read differently due to cut specifications of the blade manufacturer. It might be necessary to increase/decrease tension up/down one size on blade tension scale to achieve proper blade tension.

Open both doors. Loosen the lock lever (A-Fig.9) by turning it counter clockwise and turn the blade tracking knob (B-Fig.9) clockwise/counterclockwise while turning the upper wheel by hand at least three rotations until the blade tracks centered on the wheel. Finally, tighten the lock lever and close the doors.

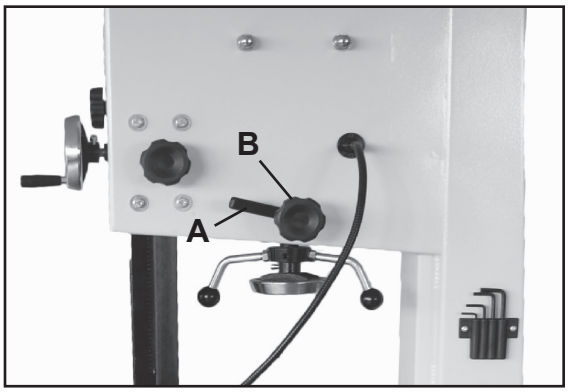


Figure 9

Adjusting the Blade Tension

The 10-350 has a quick release blade function which allows for fast blade changing and tensioning. The quick release lever is shown in figure 10.

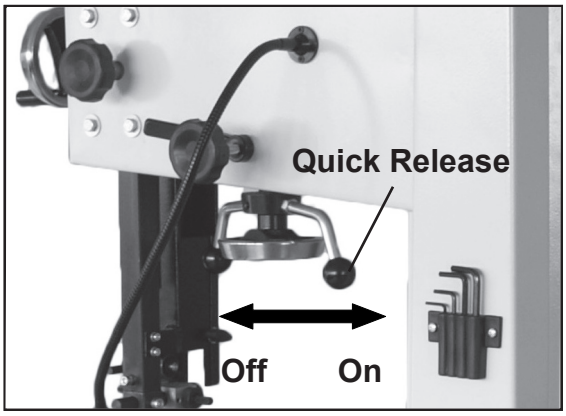


Figure 10

To loosen the tension of the blade, turn the blade tension handwheel (A-Fig.11) counter clockwise. To tighten the tension of the blade, turn the blade tension handwheel clockwise.

Tension the blade until the tension readings correspond to the width of blade you are using by viewing through the tension indicator window (B-Fig.11).

Note: The blade tension scale may read differently due to cut specifications of the blade manufacturer. It might be necessary to increase/decrease tension up/down one size on blade tension scale to achieve proper blade tension.

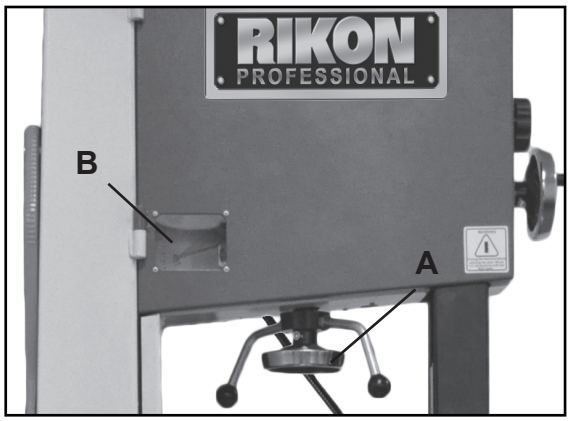


Figure 11

Caution! Always tension the blade with the quick release lever in the “On” position. Failure to do so could result in lack of blade tension or tension failure.

Blade Tension Indicator Adjustment

The blade tension indicator can be adjusted for blades known to be cut over/under length by different manufacturers. With moderate tension on the blade loosen the two adjusting screws with a Phillips-head screw driver (A-Fig.12). Adjust the blade indicator bracket up/down as needed (B-Fig.12) and re-tighten the two adjusting screws.

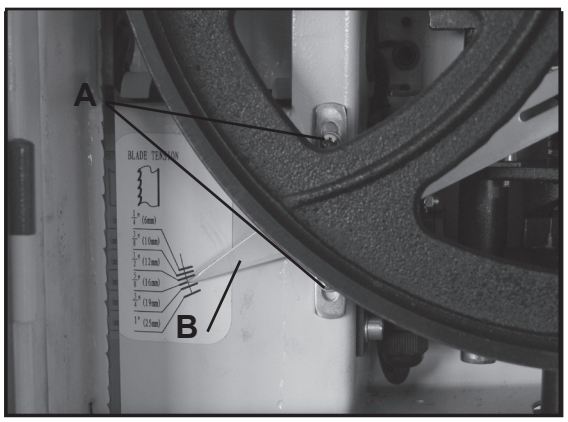


Figure 12

Adjustments

Changing the Bandsaw Blade

Warning! Unplug the machine from the electrical supply. This ensures that the Bandsaw will not accidentally turn on if the ON/OFF switch is bumped.

a) Open the top and bottom wheel doors by turning the door locking knobs. (A-Fig.13)
b) Release the blade tension by moving the quick release lever (Fig.14) from right to left. Open the hinged door on the blade guard by loosening the wing screw (A-Fig.15). Loosen then open the table leveling bar (A-Fig.16).
c) Remove the saw blade by feeding it through the slot in the table (B-Fig.16), upper and lower blade guides and the slot in the spine of the machine, being careful not to cut yourself. Wear gloves for protection.
d) When installing the new blade, ensure the blade teeth are pointing downwards and towards you at the position where the blade passes through the table.
e) Center the blade on both wheels.
f) Re-tension the new blade by moving the quick release lever (Fig.14) left to right and check the blade tracking. Spin the upper wheel clockwise three times. The blade should run in the center of both wheels. Refer to “Tracking the Saw Blade” on page 10 for more details.
g) Set the blade guides as described in the section “Adjusting the Blade Guides” on page 12.
h) Close the hinged door on the blade guard and tighten the wing screw (A-Fig.15). Close the table leveling bar and tighten (A-Fig. 16).
i) Close and lock both the wheel doors (A-Fig.14) before reconnecting the power supply.

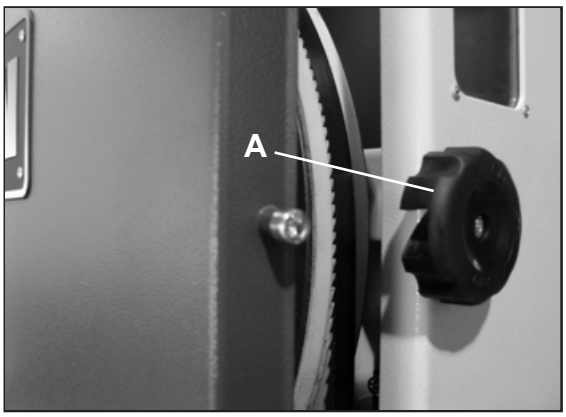


Figure 13

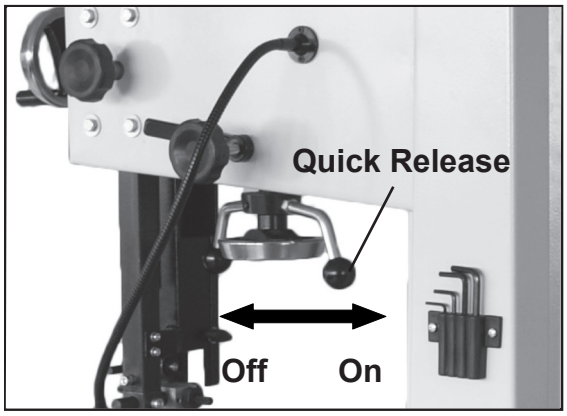


Figure 14

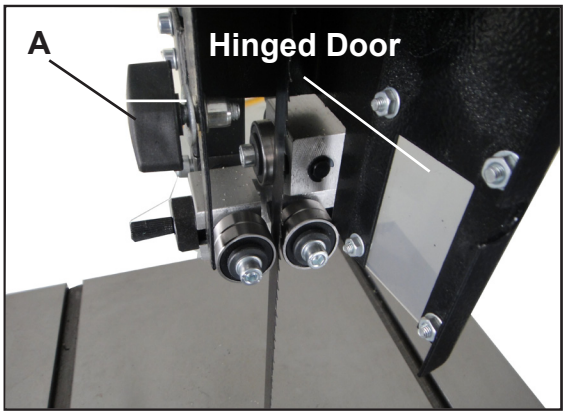


Figure 15

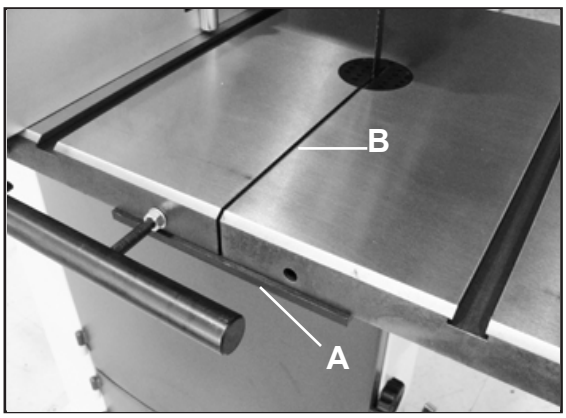


Figure 16

Adjusting the Blade Guides

Upper Guides: To adjust the upper blade guides, first position the roller guides relative to the blade by loosening the Allen cap head screw (A-Fig.17) and sliding the guide assembly until the side roller guides are approximately 1/16” behind the gullet of the blade then tighten the Allen cap head screw (A-Fig.17). Next set the roller guides to within 1/32” of the blade by releasing the lock knob (B-Fig.17) and turning the micro-adjusting knob (C-Fig.17). Do not set the guides too close, as this will adversely affect the life of the blade. When the correct adjustment is reached, lock the guides in position by tightening the lock knob (B-Fig.17). Finally, follow the same steps above to position the rear thrust roller guide.

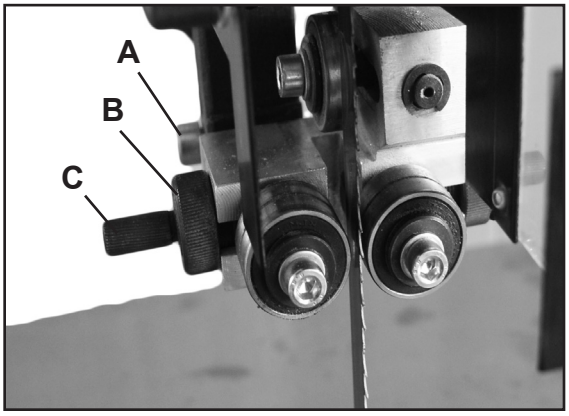


Figure 17

Lower Guides: To adjust the lower blade guides, first loosen the hex nut (A-Fig.18) then move the lower guide support casting to allow the side roller guides to be approximately 1/16” behind the gullets of the blade and tighten the hex nut (A-Fig.18). Next set the roller guides to within 1/32” of the blade by releasing the lock knob (B-Fig.18) and turning the micro-adjusting knob (C-Fig.18). Do not set the guides too close, as this will adversely affect the life of the blade. When the correct adjustment is reached, lock the guides in position by tightening the lock knob (B-Fig.18). Adjust the thrust bearing to be just clear of the back of the blade by unlocking the hex nut (D-Fig.18), and turning adjusting knob on rear of the trunnion. Finally, tighten hex nut (D-Fig.18).

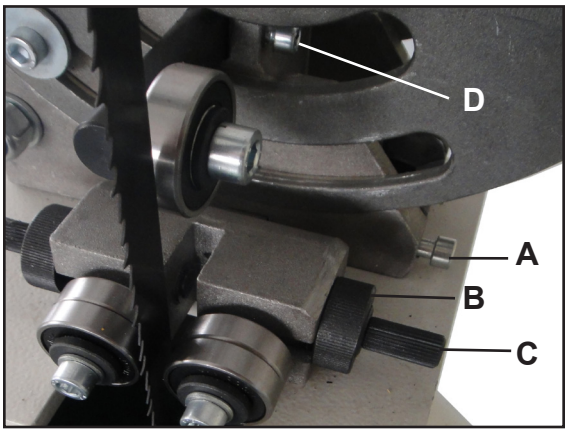


Figure 18

Make sure doors are closed, turn the bandsaw on and inspect that the upper, lower and thrust bearings are not turning. All bearings should not turn unless pressure from workpiece is applied to the blade. If bearings are turning under no pressure, repeat steps to adjust the blade guides.

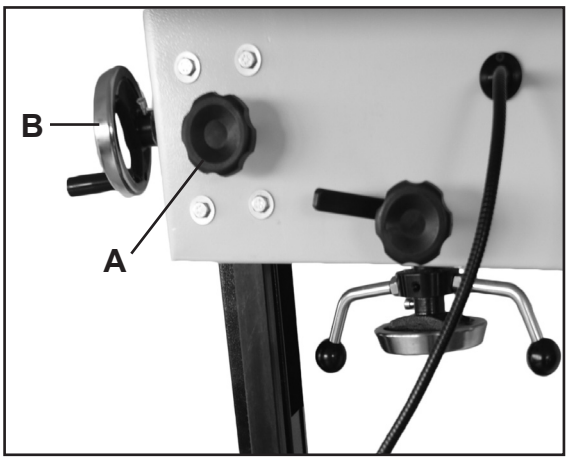


Figure 19

Adjusting the Cutting Height

Loosen the guidepost lock knob (A-Fig.19) and turn the guidepost handwheel (B-Fig.19) to raise or lower the guide post/upper blade guide assembly to the desired height. Then tighten the guidepost lock knob.

Note: The bottom edge of the guide bearings should be approximately 1/4”above the top surface of the work piece. (Fig.20)

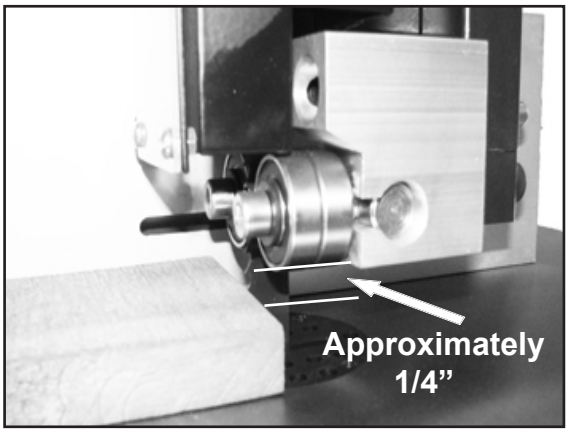


Figure 20

Changing Blade Speed Pulley Setting

Warning! Before changing the speed, always make sure the machine has been unplugged from the electrical supply.

The 10-350 has two pulley speed ranges, low speed (2132 ft/min) and high speed (4101 ft/min).

The 10-350BAL has two pulley speed ranges, low speed (2163 ft/min) and high speed (4162 ft/min).

The lower wheel (A-Fig.21) and the motor shaft have twin multi-vee pulleys (B-Fig.21). A flat ribbed “J” belt (C-Fig.21) passes around the wheel pulley, motor pulley and belt tension pulley. The belt tension is released and applied by using the handwheel (D-Fig.21).

For the high speed the belt should be fitted to the rear pulley on both the motor and the wheel (A-Fig.22).

For the low speed the belt should be fitted to the front pulley on both the motor and wheel (B-Fig.22).

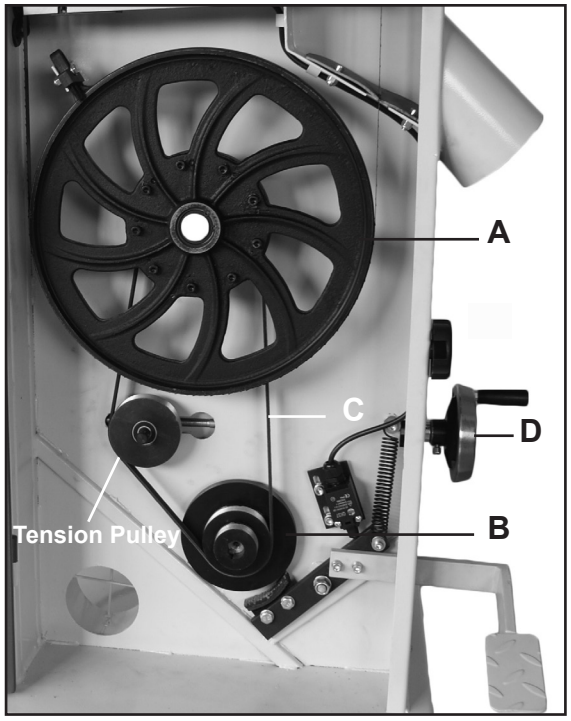


Figure 21

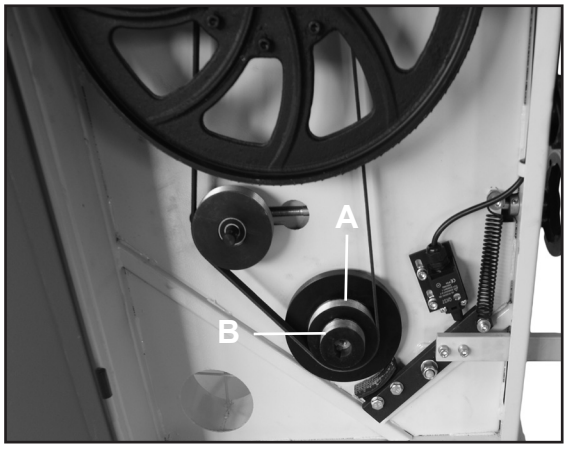


Figure 22

Setting Drive Belt Tension

To properly adjust belt tension, turn hand-wheel (D-Fig.21) until there is 1/2” deflection in the flat ribbed “J” belt.

Operation

Switch Control Station

The 10-350 has a key-on safety feature that will lock out unauthorized users such as students, coworkers or employees not trained or qualified to use the bandsaw.

To operate the saw turn the key (A-Fig.23) to the right to activate the control station. A green light will illuminate (B-Fig.23) showing that the saw is ready for use. Press the green “START” button (C-Fig.23) to turn the saw on. Once the cut is finished press the “STOP” button to turn the saw off.

Note: If working with large pieces and not able to reach the “STOP” button simply press the foot brake. There is a switch built into the foot break assembly that will turn the saw off.

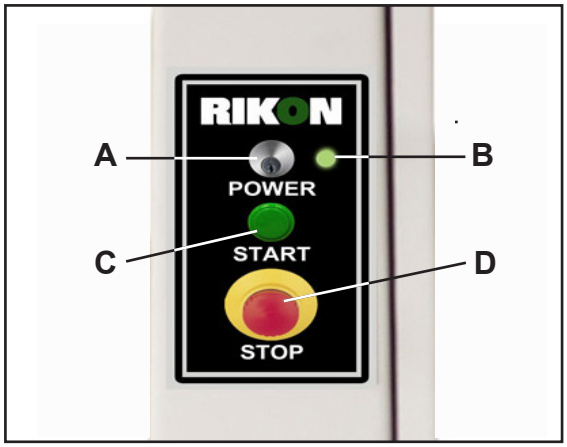


Figure 23

Adjusting the Rip Fence/Drift

Align the fence assembly in or out until parallel with the side of the blade by turning the adjustment collars and the fence bolts accordingly (A-Fig.24). If the mounting bolts have been tightened, these will need loosened off before this adjustment can be made. The same adjustment can be made to compensate for blade drift.

Check that the fence is 90 degrees to the table using a suitable square. If no adjustments are needed fully tighten the fence bar nuts. If adjustment is required, raise or lower either side of the fence rail until the fence body is 90 degree to the table. Once set at 90 degrees, fully tighten the fence bar nuts.

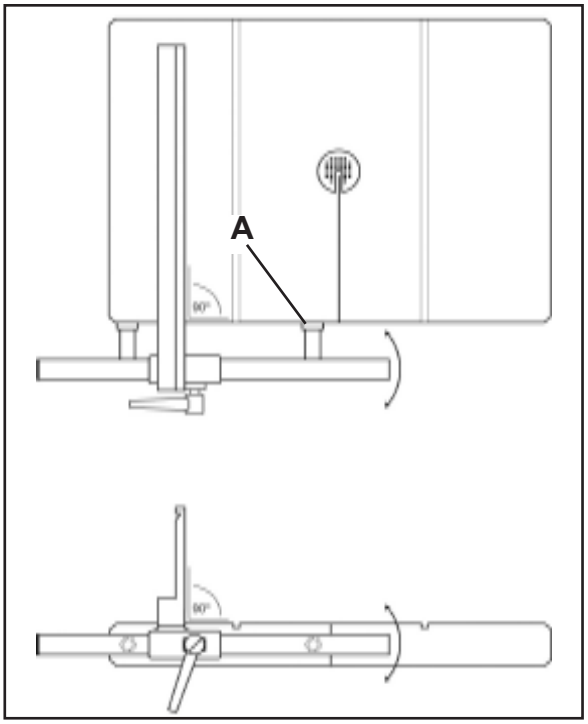


Figure 24

Re-sawing

A resaw guide is supplied with this bandsaw to help correct any blade wandering during certain resawing operations.

For resawing, attach the resaw bar to the slot on the fence. Position the resaw bar so that it is aligned with the front of the blade. Draw a reference line down the workpiece. Use the bar as a pivot point and follow the line through the cut. (Fig.25)

Note: The resaw bar is not needed for all resaw operations. Proper blade tension and selection as well as proper guide set up will allow resawing flat stock against the fence.

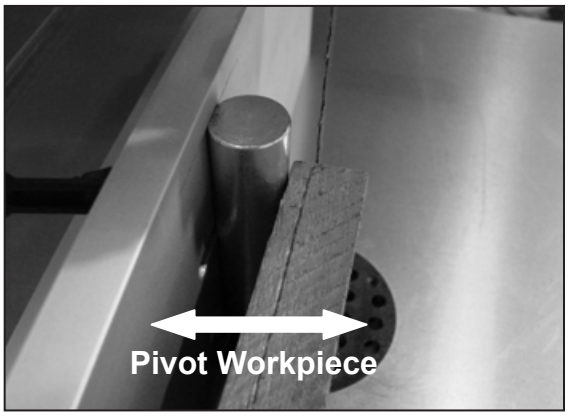


Figure 25

Basic Operation

The blade cuts on a continuous down-stroke.

With both hands, firmly hold the workpiece down on the table, and feed it towards the blade slowly, keeping your hands away from the blade.

For best results the blade must be sharp. A dull blade will not cut correctly, especially when straight cutting, and causes excess pressure to be applied on the rear guide bearings.

Select the right blade for the job, depending on the thickness of the wood and the cut to be made. The thinner and harder the wood, the finer the teeth of the blade should be. Use a fine tooth blade for cutting sharp curves.

The machine is especially suited for cutting curves, but will also make straight cuts. When cutting, follow the design marked out by pushing and turning the workpiece evenly.

Do not attempt to turn workpiece without pushing it as this may cause the workpiece to get stuck, or the blade to bend.

Features and Safety
The 10-350 14” Professional Bandsaw has many built-in safety and feature items shown below.

LED Work Light
The LED work light is built onto a long flexible goose neck giving it the ability to illuminate the work surface on both sides of the blade. To operate the LED work light depress the round button (A-Fig.26). LED lights are very bright and can wash out reference lines on a workpiece. If the light is too bright, move the goose neck away reducing the amount of light cast on the workpiece.

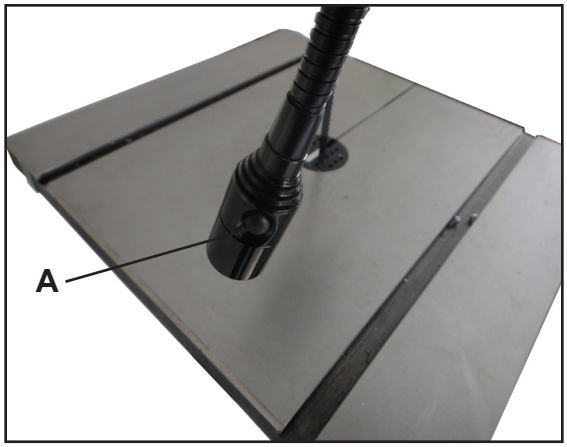


Figure 26

Foot Brake
The foot brake, when depressed will slow the blade to a stop. The foot brake (A-Fig.27) on the 10-350 will also shut off the bandsaw simultaneously. This is an added safety feature that allows you to handle large workpieces without having to reach back to the switch control station to the main “STOP” button. The lever, when depressed pivots the break pad (B-Fig.27) against the break disc (C-Fig.27) on the motor pulley.

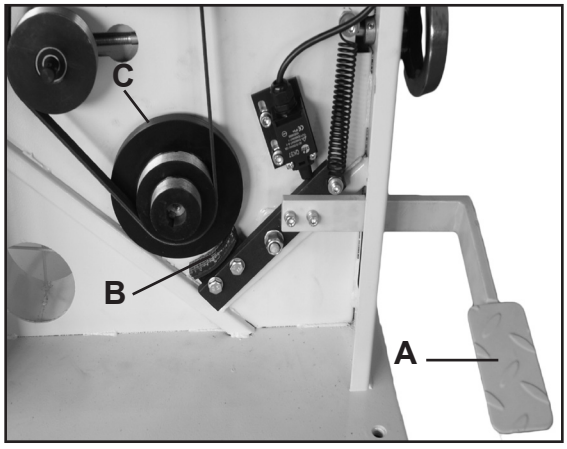


Figure 27

Quick Release Blade Tension Lever
The tension lever that operates the quick release blade function has two of the most innovative features on the 10-350. One feature allows the blade tension to be released from back or front of the saw. The other feature disables the saw from operating if the quick release lever is not engaged with no tension on the blade. This prevents accidental starting while the tension lever is off and will eliminate the possibility of damaging a blade or the saw. Fig.28

Figure 28

Dual Door Safety Switches
Both the upper and lower blade wheel doors are equipped with safety switches that will shut the saw off when opened. The saw will not operate until the blade wheel doors are closed. If a door is opened while the saw is running power to the motor will be cut off. The only way to restart the saw is to make sure both band wheel doors are closed before pressing the “START” button.

Electrical Requirements

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug.*

Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks the one illustrated in Figure A below. The tool has a grounding plug that looks like the grounding plug as illustrated in Figure A below.

* Canadian electrical codes require extension cords to be certified SJT type or better.
** Use of an adapter in Canada is not acceptable.

Figure A

Maintenance

Caution! **BEFORE CLEANING OR CARRYING OUT MAINTENANCE WORK, DISCONNECT THE MACHINE FROM THE POWER SOURCE (WALL SOCKET). NEVER USE WATER OR OTHER LIQUIDS TO CLEAN THE MACHINE. USE A BENCH BRUSH. DO NOT USE COMPRESSED AIR NEAR BEARINGS. REGULAR MAINTENANCE OF THE MACHINE WILL PREVENT UNNECESSARY PROBLEMS.**

Keep the table clean to ensure accurate cutting.

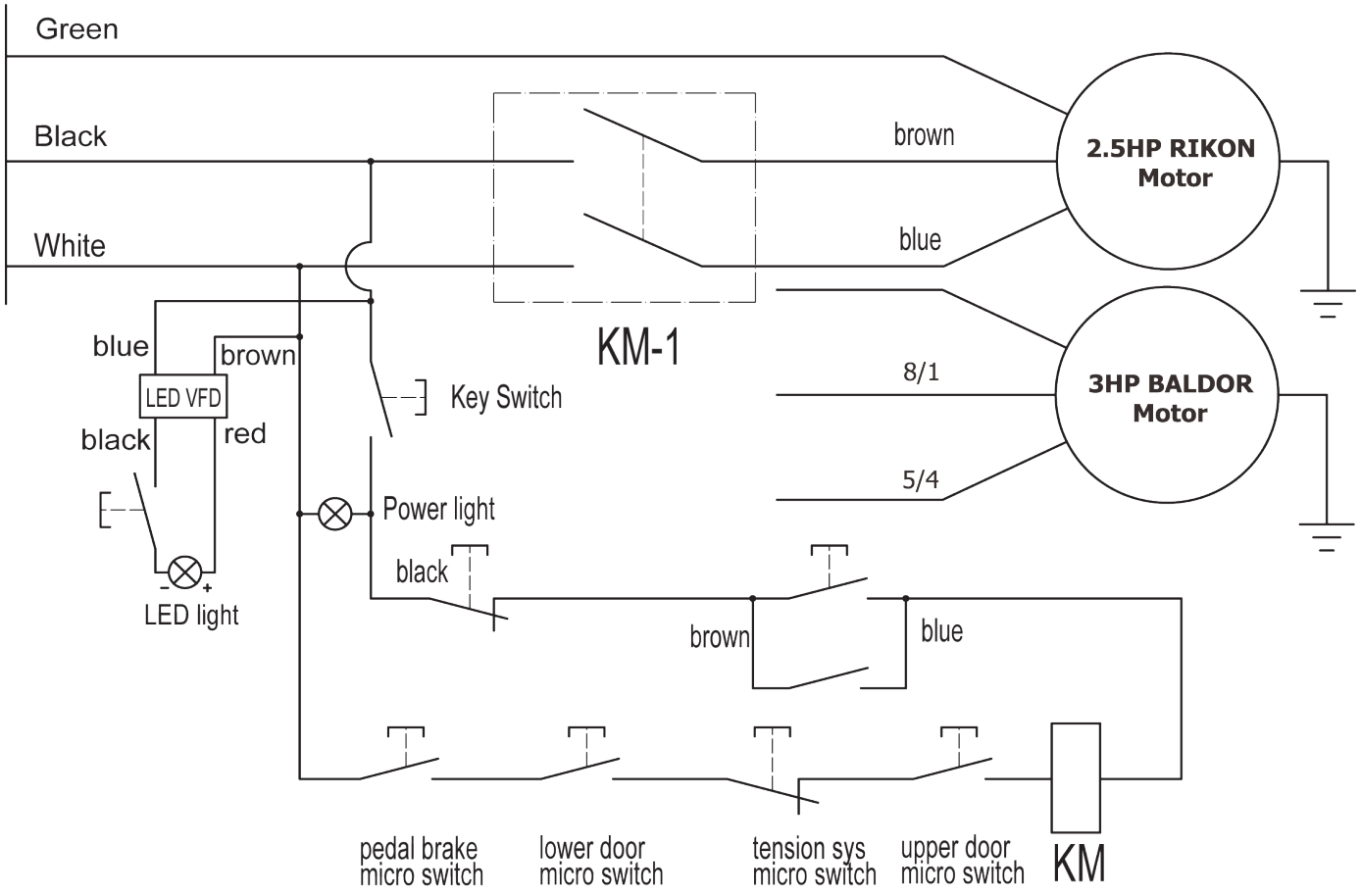
Keep the outside of the machine clean to ensure accurate operation of all moving parts and prevent excessive wear.

Keep the ventilation slots of the motor clean to prevent it from overheating.

Keep the inside (near the saw blade, etc.) clean to prevent accumulation of dust.

Wiring Diagram

WARNING! This machine must be grounded. Replacement of the power supply cable should only be done by a qualified electrician.



Troubleshooting

WARNING!

FOR YOUR OWN SAFETY, ALWAYS TURN OFF AND UNPLUG THE MACHINE BEFORE CARRYING OUT ANY TROUBLESHOOTING.

TROUBLE	PROBABLE CAUSE	REMEDY
The machine does not work when switched on.	1. No power supply. 2. Defective switch.	Check the cable for breakage. Contact your local dealer for repair.
The blade does not move with the motor running.	1. The quick release lever or blade tension handwheel has not been tightened. 2. The blade has come off one of the wheels. 3. The saw blade has broken. 4. The drive belt has snapped.	Switch off the motor, tighten the quick release lever or blade tension handwheel. Open the hinged door and check. Replace the blade. Replace the belt.
The blade does not cut in a straight line.	1. Fence for cutting not used. 2. Too fast feed rate. 3. The blade teeth are dull or damaged. 4. Blade guides not suitably adjusted.	Use a fence. Put light pressure on the workpiece & make sure the blade does not bend. Use a new blade. Adjust the blade guides (see the section on page 12).
The blade does not cut, or cuts very slowly.	1. The teeth are dull, caused by cutting hard material or long use. 2. The blade was mounted in the wrong direction.	Replace the blade, use a 6 T.P.I. blade for wood and soft materials. Use a 14 T.P.I. blade for harder materials. A 14 T.P.I. blade always cuts slower due to the finer teeth and the slower cutting performance. Fit the blade correctly.
Sawdust builds up inside the machine.	1. This is normal	Clean the machine regularly. Open the hinged door and remove the sawdust with a vacuum cleaner.
Sawdust inside the motor housing.	1. Excessive dust build-up on the machine exterior components.	Clean the ventilating slots of the motor with a vacuum cleaner. From time to time remove the sawdust to prevent it from being sucked into the housing
The machine does not cut at 45° or 90° angles.	1. The table is not at right angles to the blade. 2. The blade is dull or too much pressure was put on the workpiece.	Adjust the table. Replace the blade or put less pressure on the workpiece.
The blade cannot be properly positioned on the bandwheels.	1. The wheels are not in alignment. Defective bearing. 2. The blade tracking knob hasn't been properly adjusted. 3. Inferior blade.	Contact Technical Support @ 877-884-5167 or techsupport@rikontools.com. Adjust the knob (see the section on page 10). Replace the blade.

For parts or technical questions contact: techsupport@rikontools.com or 877-884-5167.

Troubleshooting

Adjusting the Upper Blade Guide Bearings Parallel to the Blade

(Refer to “Guide Post Assembly” parts diagram on page 28)

This step may not be necessary, it is factory preset. If adjustment is needed follow the steps below.

First slightly loosen part #226 Hex Bolt M8X20 (4 each) on rear of upper bandsaw housing. This will allow you to adjust the micro adjustment screws #227 in part #224 Gear Bracket.

Next place a 3mm “L” wrench through the sight holes in part #198 Cover. Turning clockwise on the micro adjustment screws in left two holes will adjust the left bearings to the right. Turning clockwise on the micro adjustment screws in the right two holes will adjust the right bearings to the left. Check bearings for parallel.

Lastly tighten parts #226 Hex Bolt (4) on back of bandsaw housing. Repeat steps if the bearings are still not parallel.

Adjust Upper Side Bearings Which Will Not Track Close to the Blade

(Refer to “Guide Post Assembly” parts diagram on page 28)

If the right or left upper guide bearings do not adjust to within 1/32” of the blade, the Guide Post (part #195) may need adjustment.

First lower the Guide Post (part #195) all the way to the table.

Second slightly loosen parts #226 Hex Bolt M8X20 (4) on the back of the upper bandsaw cabinet housing.

Next swing the Guide Post (part #195) right or left until side guide bearings are properly spaced on each side of blade making sure that the blade will strike the center of the rear thrust bearing. Tighten part #226 Hex Bolt M8X20 (4) on the back of the upper bandsaw cabinet housing.

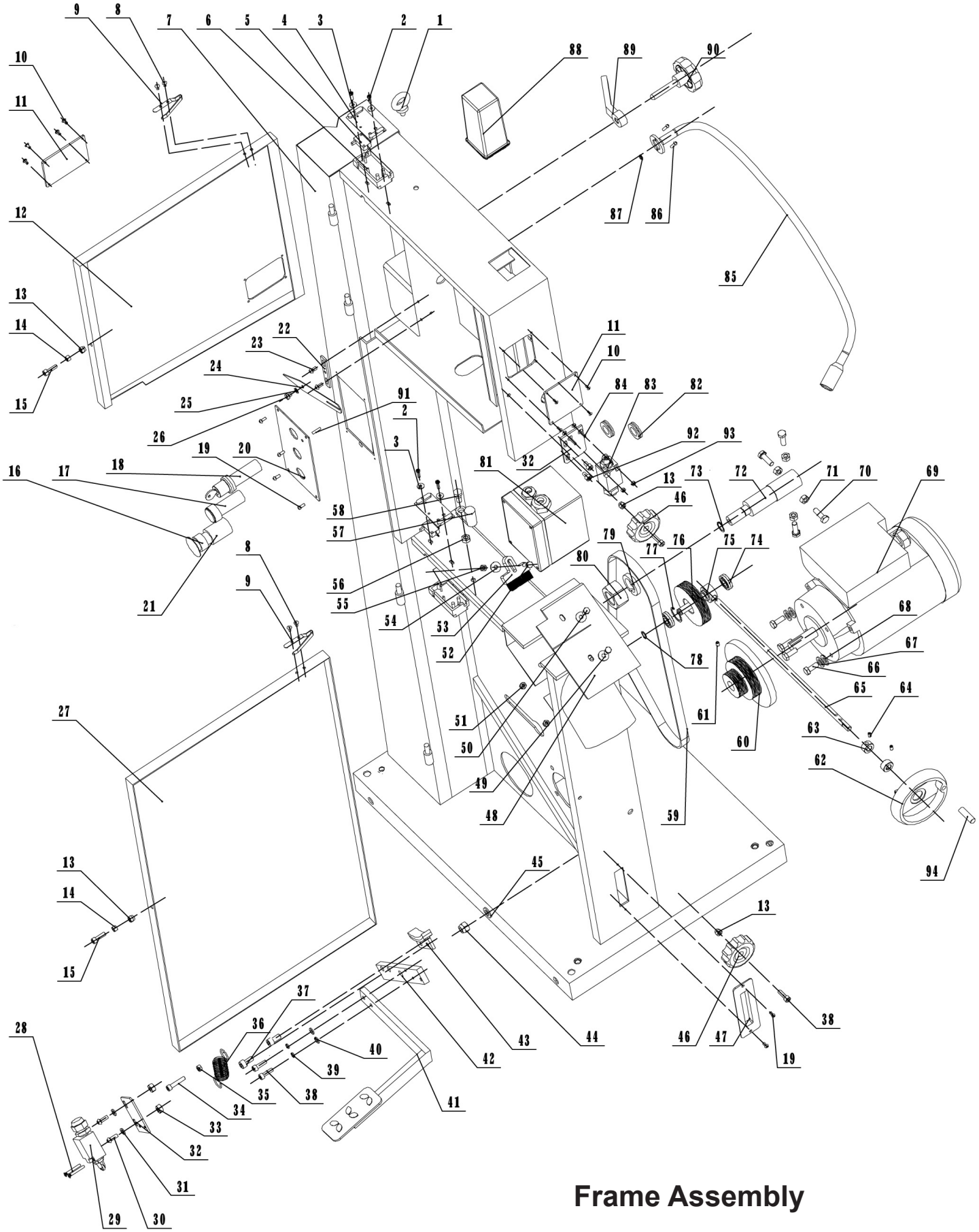
Raise the Guide Post (part #195) seven inches off the table and check alignment. If side guide bearings travel out of alignment repeat steps above. Raise the Guide Post (part #195) to the top of the travel and check final alignment. Repeat steps above if necessary.

Changing Bandsaw Tire

Use a putty knife to get underneath the tire and pull it up and away from the wheel. Work the putty knife all the way around the wheel to loosen the tire. Then, use the putty knife as leverage to flip the tire over and off of the wheel. Clean the inside of the groove, removing any dirt, debris or cement with lacquer thinner.

Soak the replacement tire in warm water to make it more flexible. Let tire dry and lay on top of wheel. Start by setting the tire into the wheel groove at the top of the wheel. Using a putty knife, work the new tire around the wheel, making sure not to slice the tire. If rubber cement is to be used, make sure to distribute evenly. Having high spots between the wheel and the tire will cause a vibration and effect blade tracking.

Parts Diagram



Frame Assembly

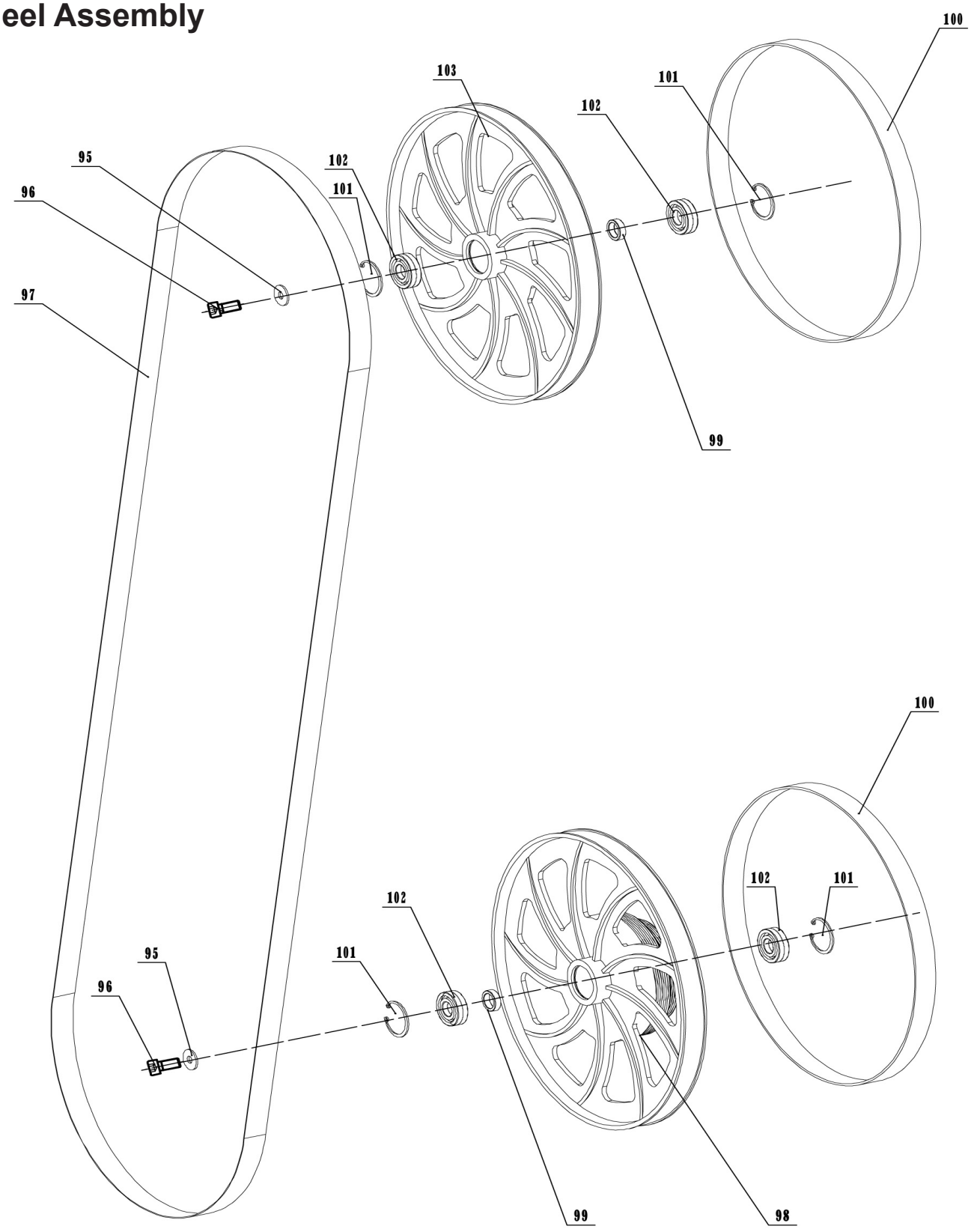
Parts List

Frame Assembly

Key No.	Part No.	Description
1	M8X16GB825Z	Ring
2	ST3D5X19GB845Z	Tap screw
3	WSH4GB96Z	Washer
4	JL20073003	Micro-switch cap
5	KW3-0Z-2B	Switch
6	JL20073002	Micro-switch cover
7	JMBS1402011000	Frame
8	RVT4X8GB12618	Rivet
9	JL22010008	Leaf spring
10	RVT3X7GB12618A	Rivet
11	JL26010001	Clear window
12	JMBS1402012000	Upper door assm.
13	M6GB889Z	Locking nut
14	JL26010007	Tube
15	M6X25GB70Z	Hex socket screw M6X25
16	hy57b	Stop switch box
17	LA39	Button
18	LA42Y2-10/B	Key switch
19	M4X10GB818Z	Pan head screw
20	JMBS1402010003	Switch plate
21	PL3	Stop switch
22	JL27010005	Pointer plate
23	M5X10GB818Z	Pan head screw
24	JMBS1402010001	Pointer
25	WSH5GB97D1Z	Flat washer
26	JL26010010	Pointer screw
27	JMBS1402013000	Lower door assm.
28	M4X30GB818Z	Pan head screw
29	QKS7-01	Microswitch
30	M6X16GB70Z	Hex socket screw M6X16
31	WSH6GB97D1Z	Flat washer
32	JMBS1402010002	Micro-switch plate
33	M8GB6170Z	Nut
34	M6X30GB70Z	Hex socket screw M6X30
35	M6GB6170Z	Nut
36	FDPT1202020021	Spring
37	M8X16GB70Z	Hex socket screw M8X16
38	M6X20GB70Z	Hex socket screw M6X20
39	WSH6GB93Z	Spring washer
40	WSH6GB97D1Z	Flat washer
41	JXBS2401015101	Pedal
42	JMBS1402015001	Lever
43	JMBS1402015100	Brake block
44	M10GB889Z	Locking nut
45	WSH10GB97D1Z	Flat washer
46	JL26010006	Knob
47	JXBS2401015005	Side cover
48	JL26010013	Plate
49	WSH6GB96Z	Washer
50	M6X16GB5783Z	Bolt M6X16
51	M6GB889Z	Locking nut
52	M6X25GB5783Z	Hex bolt M6X25
53	JL26010003	Brush
54	WSH6GB96Z	Washer
55	M6GB6170Z	Hex nut M6
56	M8GB889Z	Locking nut M8
57	JL26010014	Seat pad
58	JL26010015	Screw shaft
59	JMBS1402020002	Drive belt
60	JMBS1402020003	Motor pulley
61	M8X10GB80B	Hex screw M8X10
62	JL26020012	Small handwheel
63	JL20010015	Retaing ring
64	M5X8GB78Z	Screw M5X8
65	JMBS1402023003	Thread rod
66	M8X20GB5783Z	Hex screw M8X20
67	WSH8GB97D1Z	Flat washer
68	WSH8GB862D2Z	Washer
69A	H8022684-01	2.5HP RIKON Motor
69B	35LYY983	3HP Baldor Motor
70	M8X25GB5783Z	Hex screw M8X25
71	M8GB6170Z	Hex nut M8
72	JMBS1402020004	Lower bearing bolt
73	CLP17GB894D1B	Retaining ring
74	BRG80101GB278	Bearing
75	JMBS1402023002	Sliding shaft
76	JMBS1402023001	Tension wheel
77	CLP28GB893D1B	Retaing ring
78	CLP12GB894D1B	Retaing ring
79	WSH27GB93B	Spring washer
80	M27X2GB6171Z	Nut M27X2
81	JL48091100	Relay
82	1905010A	Bushing
83	QSK-02	Microswitch
84	M4X30GB819Z	Screw M4X30
85	JMBS1402070000	Light
86	M4X15GB819B	Screw M4X15
87	JL60010004	Bushing
88	JMBS1402010005	Upper guide cover
89	JL26030016	Thread handle
90	JL26030015	Adjusting Knob
91	JMBS1402010004	Indicator light
92	M5X10GB70Z	Hex socket screw M5X10
93	M4GB6170Z	Nut M4
94	JL26020014	Small handwheel

Parts Diagram

Wheel Assembly



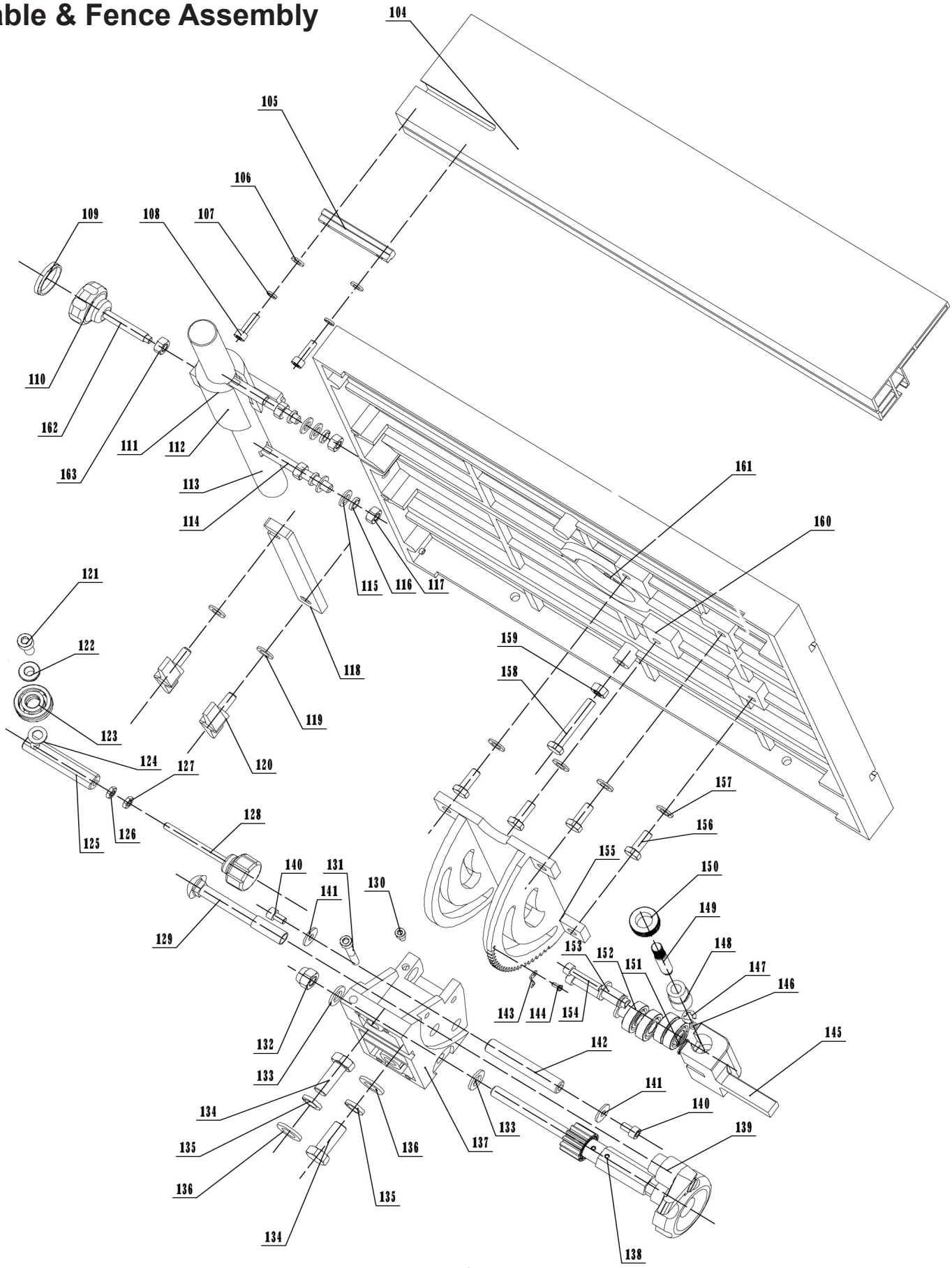
Parts List

Wheel Assembly

Key No.	Part No.	Description
95	WSH8GB96Z	Washer
96	M8X16GB70Z	Hex socket screw M8X16
97	JMBS1402020001	Blade
98	JMBS1402022100	Lower wheel assm.
99	JL28020004	Bushing
100	JL21022002A	Tire
101	CLP40GB893D1B	Retaining ring
102	BRG180203GB278	Bearing
103	JL28022001	Upper wheel

Parts Diagram

Table & Fence Assembly



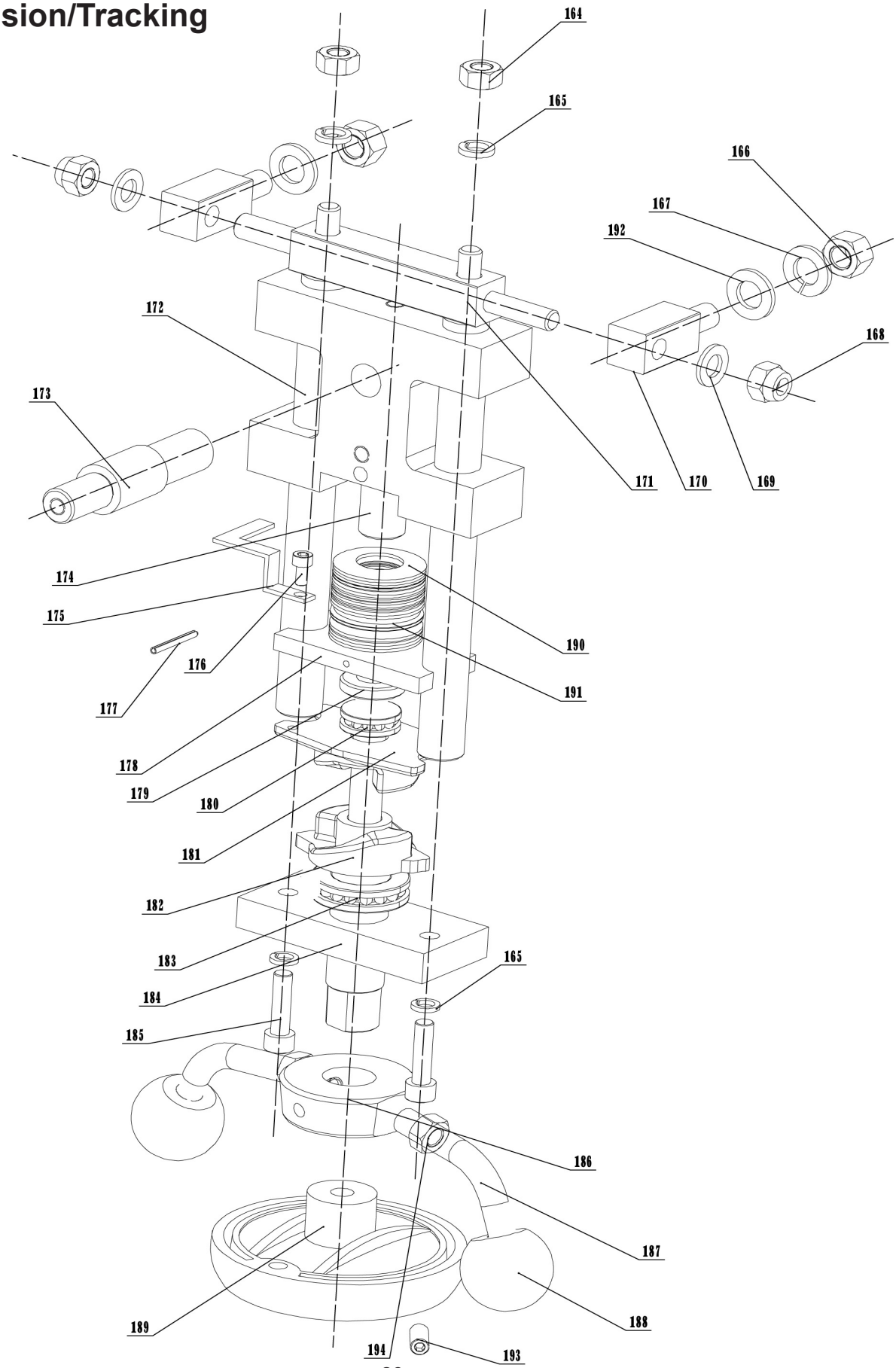
Parts List

Table & Fence Assembly

Key No.	Part No.	Description
104	JMBS1602060001	Rip fence
105	JMBS1601060002	Locking Plate
106	WSH6GB97D1Z	Washer
107	WSH6GB93Z	Spring washer
108	M6X16GB70Z	Hex socket screw M6X16
109	JL20024001	Adjusting Knob cap
110	JL20024002	Adjusting Knob body
111	JMBS1601060003	Knob seat
112	JL28060010	Clip
113	JMBS1602060002	Fence rail
114	JL28060005A	Support shaft
115	WSH8GB97D1Z	Washer
116	WSH8GB93Z	Spring washer
117	M8GB6170Z	Hex nut M8
118	JL27050009	Support plate
119	WSH8GB96Z	Washer
120	JL20030003	Wing knob
121	M8X25GB70Z	Hex socket screw M8X25
122	JL26041006	Bearing bushing
123	BRG6201GB276	Bearing
124	WSH8GB97D1Z	Washer
125	JL26052001	Support rod
126	M6GB6172Z	Nut M6
127	M6GB41Z	Nut M6
128	JL26052002	Adjusting handle
129	M12X90GB801Z	Carriage bolt M12x90
130	M5X10GB70Z	Hex socket screw M5X10
131	M5X50GB70Z	Hex socket screw M5X50
132	M10GB889Z	Locking nut
133	WSH10GB97D1Z	Washer
134	M12X30GB5781B	Screw M12X30
135	WSH12GB97D1B	Washer
136	WSH12GB93B	Spring washer
137	JL26050002B	Lower table trunnion
138	JL26055000	Gear
139	FDPT1202040015	Locking handle
140	M6X10GB70Z	Hex socket screw M6X10
141	WSH6GB96Z	Washer
142	JL26050011	Guide shaft
143	JL26050005A	Pointer
144	ST2D9X6D5GB845Z	Pan head screw
145	JMBS1402016001	Lower guide body
146	JMBS1402051009	Washer
147	CLP6GB896B	Ring
148	JMBS1402051004	Tube
149	JMBS1402051005	Threaded shaft
150	JMBS1402051003	Lock plate
151	CLP12GB894D1B	Retaining ring
152	BRG6001-2RSGB276	Bearing
153	JMBS1402051006	Bushing
154	M6X30GB70Z	Hex socket screw M6X30
155	JL26050004C	Upper table trunnion
156	M8X20GB5783Z	Hex screw
157	WSH8GB97D1Z	Washer
158	M8GB6170Z	Nut M8
159	M8X50GB5783Z	Bolt M8X50
160	JMBS1602030001	Table
161	JL26050008	Table insert

Parts Diagram

Blade Tension/Tracking



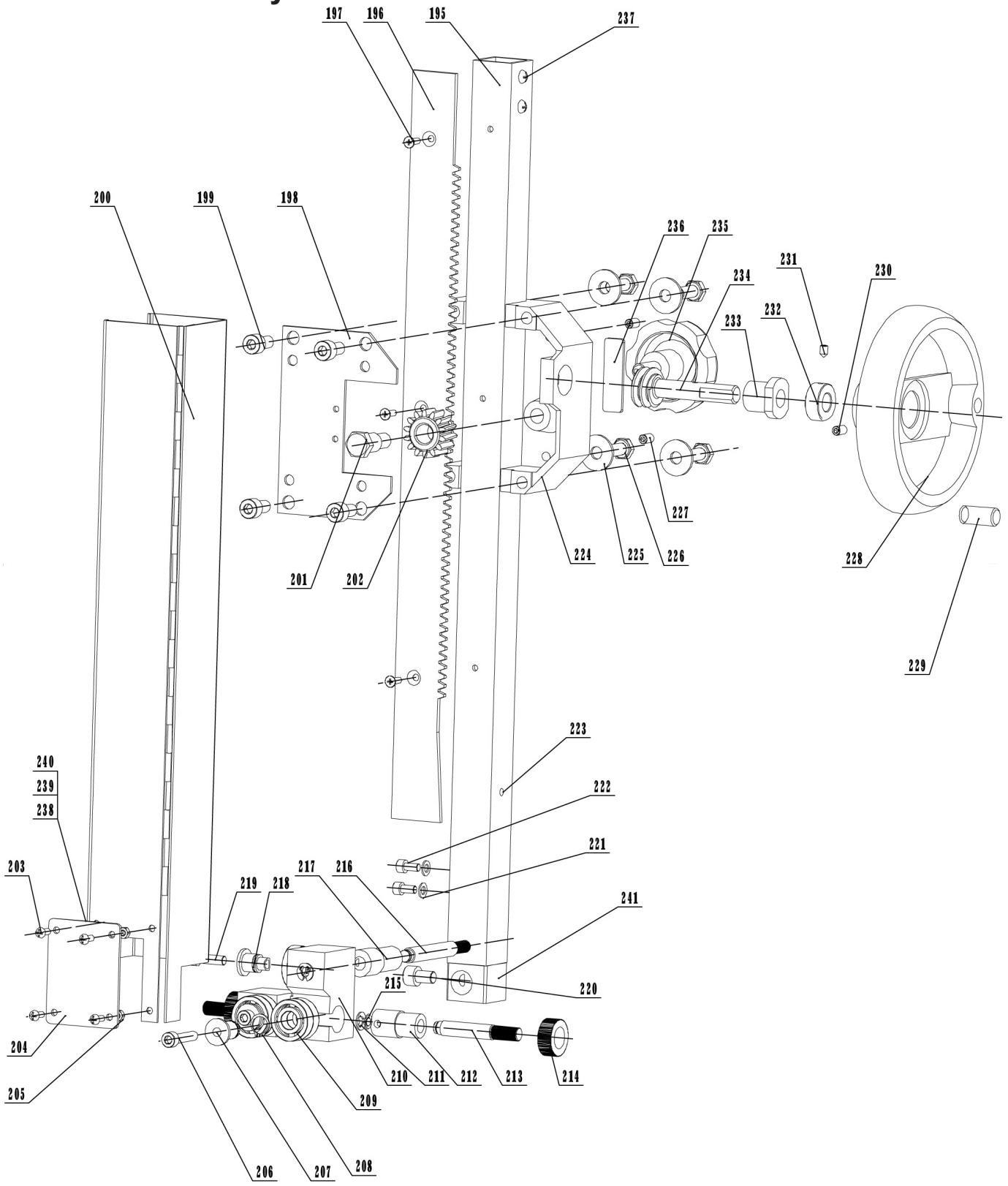
Parts List

Blade Tension/Tracking

Key No.	Part No.	Description
164	M10GB6170Z	Hex nut M10
165	WSH10GB93B	Spring washer
166	M12GB923Z	Nut M12
167	WSH12GB93B	Spring washer
168	M10GB889Z	Locking nut
169	WSH10GB97D1Z	Flat washer
170	JXBS1801030006	Bolt
171	JXBS1801030007	Threaded rod
172	JXBS1401030002	Slide rod
173	JMBS1402040011	Upper wheel shaft
174	JMBS1402040010	Bushing
175	JMBS1402040001	Switch plate
176	M5X10GB70Z	Hex socket screw M5X10
177	PIN3X30GB879D1B	Roll pin
178	JMBS1402040012	Threaded plate
179	JMBS1402040009	Threaded rod
180	BRG51102GB301	Bearing
181	JMBS1402040005	Upper block
182	JMBS1402040006	Lower block
183	BRG51105GB301	Bearing
184	JMBS1402040007	Support plate
185	M10X30GB70Z	Hex socket screw M10X30
186	JMBS1402040008	Knob bushing
187	JMBS1402040003	Knob lever
188	JMBS1402040004	Knob
189	JXBS2201023004	Small handwheel
190	WSH20GB95Z	Flat washer
191	WSH40GB1972A	Spring
192	WSH12GB96Z	Washer
193	M6X12GB80B	Hex screw M6X12
194	M10GB6170Z	Nut M10

Parts Diagram

Guide Post Assembly



Parts List

Guide Post Assembly

Key No.	Part No.	Description
195	JMBS1402050001	Guide post
196	JMBS1402050002	Rack
197	M4X10GB819Z	Pan head screw
198	JL26040002	Cover
199	M8X10GB70Z	Hex socket screw M8X10
200	JMBS1402052000	Blade cover
201	JL26040006	Screw
202	1501006	Gear
203	M4X8GB818Z	Pan head screw
204	JL26042011	Spectator
205	M4GB6170Z	Hex nut M4
206	M6X30GB70Z	Hex socket screw M6X30
207	JMBS1402051006	Bushing
208	CLP12GB894D1B	Retaining ring
209	BRG6001-2RSGB276	Bearing
210	JMBS1402051001	Upper guide body
211	CLP6GB896B	Ring
212	JMBS1402051004	Threaded bushing
213	JMBS1402051005	Threaded shaft
214	JMBS1402051003	Lock plate
215	JMBS1402051009	Washer
216	JMBS1402051008	Threaded shaft
217	JMBS1402051007	Threaded bushing
218	JMBS1402051002	Bushing
219	M6X20GB70Z	Hex socket screw M6X20
220	M8X12GB70Z	Hex socket screw M8X12
221	WSH5GB96Z	Washer
222	M5X10GB70Z	Hex socket screw M5X10
223	M5X10GB818Z	Pan head screw
224	JL26040008	Gear bracket
225	WSH8GB96Z	Washer
226	M8X20GB5783Z	Hex bolt M8X20
227	M6X12GB77B	Screw M6x12
228	JL2603012	Big handwheel
229	1501009-2	Handle assm.
230	M6X12GB80B	Hex screw M6X12
231	M5X8GB78B	Hex screw M5X8
232	CLP12GBGB884	Ring
233	JL26040003	Bushing
234	JL26040004	Rod
235	JL26040015	Locking handle
236	JL26040007	Setting plate
237	M5X10GB818Z	Pan head screw
238	M6X15GB17880D3Z	Nut M6X15
239	WSH6GB96Z	Washer
240	JXBS2401054001	Wing knob
241	JL26041005	Support bracket

How-To's for all Band Saw Blades

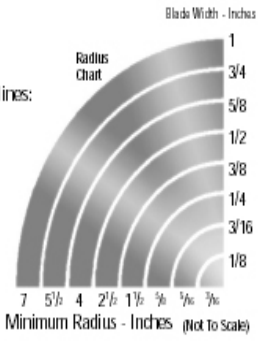
Choosing the Correct Blade Width

Blade width is measured from the tips of the teeth to the back edge of the blade as shown above. The instructions for the particular machine being used should be followed when selecting blade width.

If no such instructions are provided, blade width should be determined with the following guidelines:

For Cut-Off Sawing, the blade should be as wide as the machine will allow. The wider the band is, the straighter the cut will be. Faster feeding can be achieved.

For Contour Sawing, the blade should be as wide as the machine allows, but still narrow enough so that it can cut the desired shape (radius). Minimum dimensions for different cutting radii are shown on the chart at right.



How To Choose The Correct Number Of Teeth Per Inch (TPI)

The number of teeth per inch (TPI) is important in obtaining the finish desired and the proper feed rate. A coarse tooth blade (2, 3 TPI) should be used for resawing wood and cutting thicker stock up to 8". A fine toothed blade (18 to 32 TPI) should be used for thinner metals and plastics under 1/4". For general cutting of 3/4" wood 4 TPI will provide a fast cut and 14 TPI will cut slow, but leave a smoother finish.

When Selecting TPI remember:

- More TPI give a smoother but slower cut
- Fewer TPI allow a faster cut with a slightly rougher finish
- At least three teeth must be in the workpiece—the chart to the right will help you decide.

TPI	Minimum Material Thickness
32	3/32"
24	1/8"
18	5/32"
14	1/4"
10	5/16"
8	3/8"
6	1/2"
4	3/4"
3	1"
2	1-1/2"

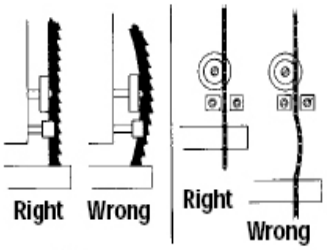
It is important to know the SFM for the various speed settings of your band saw, so that you can select the proper speed for cutting wood or other materials. Check the operator's manual of your band saw to determine the SFM or use the following procedure:

1. Determine the RPM: check the operator's manual or clock the revolutions per minute of the wheels with a tachometer or revolution counter.
2. Measure the diameter of the drive wheel in inches and multiply by .262 to obtain the wheel circumference. The RPM times circumference equals the surface speed of the blade.
   RPM x diameter in inches x .262 = SFM.

Note: Spring Steel Wood Cutting Band Saw Blades should never be operated at surface speeds above 3000 SFM. Carbon Hard Edge Flexible Back Band Saw Blades may be run up to 8000 SFM.

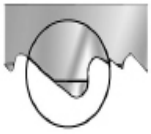
Installing your Band Saw Blade

1. Unplug the saw, then loosen the tension on the upper wheel. With all the blade guides backed off, slip the new blade around the wheels and then tension it.
2. When you have tensioned the blade enough to keep it on the wheels, track it by turning the upper wheel with one hand while adjusting the tilt of the wheel's axis with the other hand. The blade should ride in the middle of the rim. **Never track the blade with the motor running and the cover open.**
3. Next, adjust the blade guides; first the thrust bearings: upper and lower, then the left had side guides.
4. Use a square to make sure you are not pushing the blade out of line and place a piece of white paper between the blade guide and the blade to allow for clearance.



Diagnosing Problems

1. Premature and Excessive Tooth Wear



- Feed pressure too light, increase it.
- Lower band velocity.
- Improper tooth selection, use a finer pitch.
- Improper break-in with new band. Velocity and feeding should be reduced the first few cuts.
- Teeth are running the wrong direction. Be sure teeth are pointing in proper direction.
- Incorrect saw guide insert size for the band, allowing them to strike teeth

2. Blade Vibration

- Increase or decrease band velocity.
- Teeth too coarse for workpiece.
- Material not securely held.
- Increase tension of band.
- Increase feed pressure.

3. Gullets Loading

- Teeth too fine for workpiece - use a coarser pitch.
- Decrease band velocity.

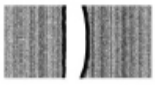
4. Band Stalls in Work

- Feed pressure too great - decrease feed.
- Teeth too coarse, use finer tooth blade

5. Premature Blade Breakage

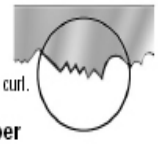
- Thickness of blade too heavy for diameter of wheels and speed of machine
- Increase or decrease velocity
- Check wheels for defects
- Teeth too coarse for workpiece –use a finer pitch
- Decrease blade tension
- Decrease feeding force
- Brittle weld – increase annealing period, decreasing heat gradually
- Check for proper adjustment of band guides, saw guides, saw guide inserts, and back-up bearings.

6. Blade Making Belly-Shaped Cuts



- Increase tension.
- Adjust guides closer to workpiece.
- Teeth too fine – use a coarse pitch.
- Decrease feed force.
- Teeth dull.

7. Tooth Strippage



- Teeth too coarse for workpiece.
- Material not securely held.
- Too much feed pressure –reduce for good chip curl.
- Band velocity too low – increase speed.

8. Band Develops a Negative Camber

- Band is riding on saw guide backup bearing too heavily. Adjust band for alignment on top and bottom wheels.
- Check band wheel alignment.

9. Blade Not Running True Against Saw Guide Backup Bearing

- If clicking noise against saw guide backup bearing, remove burr on band.
- Check band wheel alignment.
- Check saw guide backup bearing for wear, replace if necessary
- Weld not in proper alignment. Reweld blade straight and true.

10. Cutting Rate Too Slow

- Increase band velocity.
- Increase feed pressure.
- Use a coarser pitch.

11. Blade Leading In Cut

- Reduce feed pressure or rate.
- Check adjustments and wear of saw guides or rollers.
- Lack of band tension.
- Tooth set damage.

12. Premature Loss of Set

- Improper width selection - check chart for correct width for radius cutting.
- Reduce band velocity.

13. Band Develops Positive Camber

- Decrease force.
- Use a coarser pitch to increase tooth penetration.
- Adjust saw guides closer to work.

14. Band Develops Twist

- Wrong width for radius being cut – choose a narrower blade.
- Binding in cut – decrease feed pressure.
- Decrease band tension.
- Adjust saw guides further from workpiece.

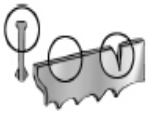
15. Finished Cut Surface Too Rough

- Improper tooth selection – choose a finer pitch.
- Increase band velocity.
- Decrease feed rate.

16. Band Scoring (side wear or grooving)

- Check for wear on saw guide inserts.
- Too much pressure on saw guide inserts.
- Check alignment of saw guides – be sure they are square to front vise. Replace or clean guides.

17. Burring or Mushrooming of Blade Back Edge



- Increase tension and adjust guides.
- Check contact between blade and back edge rollers.
- Reduce feed pressure.
- Use coarser pitch blade.
- Use finishing stone.

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5-Year Limited Warranty

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Billerica, MA 01821

The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or warranty@rikontools.com.

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